

Efficiency is Key to Profitability

High fuel costs have ranchers scratching their heads and wondering what to do to survive financially. The optimum use of resources toward a sustainable level of production is the key to securing a viable bottom line. Higher nutritional energy demands by cattle oft times require increased fuel costs relative to supplemental harvested feeds.

Pasture and harvested forage are generally the largest fixed costs to the operator. It is important, therefore, to match cow type to the forage supply to achieve maximum efficiency in harvesting the forage (grazing or mechanical) and converting it to a cash commodity in the form of the calf. Many factors affect production efficiency including cow size, milking ability body condition and availability of adequate nutrition.

A practical measurement of production efficiency for beef producers is total pounds of calf weaned per female exposed to a bull. This measure combines the reproductive performance of the cow with the growth characteristics of the calves relative to the total number of cows in the breeding herd with consideration to the available forage supply.

Energy intake comprises a large portion of the economic inputs into the cow herd. Smaller cows can wean more pounds of calf per pound of feed than can larger cows. The expected level of forage intake for cows weighing 1,000 and 1,300 pounds is approximately equivalent to 3.5 and 4.5 tons/year, respectively. At the lowest level of energy intake, the smaller, moderate-milking cows are more than twice as efficient at converting feed into pounds of weaned calf. The conclusion is a larger cow can produce a larger calf, but her cost of production may not be the optimal use of limited forage resources.

Increased milk yield often is considered an advantage in a cow-calf operation. However, higher milk production requires higher levels of energy. Cows that produce more milk have been shown to wean heavier calves, but the higher weaning weight may not be economical because of the increased subsequent reproductive failure and increased forage costs. Calves from low-milking cows tend to replace milk nutrients by increasing their non-milk feed consumption at an earlier age. After about 60 days of age, average daily gain is similar for both high and low-milk-consuming calves.

The ability to annually produce a live, viable calf and raise it to weaning is the first most important production trait of the cow herd. The energy status of the cow has an effect on reproduction. The calving date of each individual animal relative to the calving season (early, middle, or late) also influences production efficiency. Earlier calving cows generally wean older and heavier calves and use feed more efficiently than later calving cows. Cows that maintain a shorter postpartum interval are more efficient throughout their lifetime. Correlating the calving season with grazing forage production can enhance reproductive efficiency and profitability.

Body condition is correlated with reproductive efficiency, milk production, weaning weight, calving difficulty, and calf survival. Cows should have a body condition score (BCS) of 5 or 6 at calving through breeding to assure optimal reproductive performance. Cows maintained at a BCS of 5 or 6 produce an estimated annual income of \$358 and \$387 respectively, compared to an estimated income of \$241 for a cow with a pre-calving BCS of 4.

Increasing production efficiency of the beef cattle herd requires active management of pastures, rangeland and harvested forage. Moderating cow size to 1,100 pounds or less and keeping milk production moderate will lower the cow herd's energy. These measures should result in lower production costs and increased profitability.

USU Extension and the Cache County Cattlemen's Association will host Kit Pharo on Friday, June 20 at 6:30 pm in the Taggart Student Center, West Colony room, on the campus of Utah State University. Kit Pharo will discuss measures all beef producers can take to optimize their returns in their cattle operations. Cost of the seminar is \$15 per person which includes dinner. Please RSVP to the Cache County Extension office at 752-6263, by Wednesday, June 18, if you plan to attend.